IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	Atty. Ref.: **2747-8**
TELIMAA et al	Conf. No.: **6984**
Serial No. **10/590,382**	Group: **2856**
Filed: **June 20, 2007**	Examiner: **Shabman**

For: **CALIBRATION PIPETTE**

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March 22, 2010 (Monday)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPLICANTS' REPLY BRIEF

Sir:

This Reply Brief is being filed pursuant to 37 CFR §41.41 and responds to issues raised in the Examiner's Answer dated January 21, 2010.

The crux of the Examiner's Answer resides in his reliance on the definition of calibration resolution as set forth in the originally filed specification to support the position that applied Kriz reference would in fact be capable of providing the required resolution as claimed. Applicants respectfully suggest that reliance upon such disclosure has been misplaced and has thus led to an erroneous conclusion with respect to the presently claimed invention.

Specifically applicants note the following points in response to the Examiner's continued explanations regarding the claimed invention:

1) A person skilled in the art very well understands the inherent fact that the precision of a pipette as measured in volume units depends on the actual

dispense volume used. In practice the maximum precision would be than about 0.1 %. Accordingly, the precision of a 100 microliter volume would in practice be about 0.1 microlitres and that of a 1000 microliter pipette about 1 microliter. The Examiner apparently ignores this fact. Further, the Examiner's repeated remark (on page 4 of the Answer) that "...by enlarging the capacity of the pipette, a greater precision could be achieved" is indeed technically, factually and scientifically erroneous.

2) To the skilled person it is also quite clear that the "calibration resolution" means the ratio of the precision of the real volume (also called as actual volume or measured volume) to the target volume. See also page 2 lines 20-24 of the originally filed specification. The description on page 4 lines 21-23 and page 7, lines 32-33 thus in fact means the maximum resolution available in a pipette. It would not be reasonable to calibrate at the maximum or minimum volume only, since then the pipette should then correspondingly be used at the maximum or minimum volume only. On the other hand, not even the maximum calibration resolutions below 0.1 % were known or obvious.

4) The present Inventors have understood that when using a smaller resolution in calibrating pipettes, the accuracy of the dispense volume can be improved. This is a feature that has not been realized before in the art.

5) The skilled person also readily understands how to use the invention, see e.g. page 2 lines 20-24 and lines 32-34. A detailed embodiment has further been given on pages 5-7 showing the calibration of a 1000 microliter pipette. The pipetting volume is shown with the accuracy of 1 microliter, but the real volume in calibrating is input with the precision of 0.01 microlitres.

With regard to the Examiner's remarks that have been newly advanced in the Answer, applicants note the following:

6) On page 12 of the Answer, the Examiner has again repeated the erroneous argument that it would be possible to increase the dosing volume and at the same time keep the precision (as measured in volume units) same. This simply is not possible technically.

In this regard, the Examiner has also referred to the Brand pipette mentioned in the description and in the Appeal Brief. The Examiner has, however, apparently ignored the fact that the volume in the Brand pipette is shown by increments of 0.2 microlitres (e.g. 100.0, 100.2, 100.4). So, even if only the maximum volume were considered, the calibration resolution would be only 0.1 % (= 0.2/200*100).

6) As to claim 14, the steps in calibrating the Kriz pipette are:

- A calibration volume (= the indicated volume as named in claim 14) is set.
- Several aspirations are made, the real volumes obtained are measured, and the average of these is calculated.
- The average is input to the pipette system, and the system calculates the calibration factor.

This is the very same procedure as described on page 1 lines 28-32 of the originally filed specification wherein the state of the art has been described. Specifically, according to this state of the art, and by extension the Kriz pipette, only one real volume is input. This is called "one point calibration". The correction factor is <u>preset</u> and is <u>not recalculated</u>.

The Examiner's comments and reasoning on this issue are thus clearly erroneous.

7) As to claim 16, the Examiner speculates about what could have been done by Kriz et al. However, the Examiner again apparently ignores what actually was suggested by Kriz et al, namely that in paragraph [0030] Kriz et al suggest to use a quite different procedure. Examiner speculation can never take the place of facts.[1] Thus, the Examiner's position on this point is likewise erroneous.

8) We still most respectfully disagree with the Examiner's opinion that the calibration resolution would not be a structural feature. In any case, the limitations associated with the calibration resolution most certainly without question are probative with respect to the method claim 18.

9) Applicants do not understand the Examiner's statement that:

> "Appellant has not provided proof that the present application is distinguishable from the Kriz reference, but has rather merely sought to assign arbitrary values to the Kriz reference which would disapprove such a calibration resolution from existing."

First, it the Examiner's burden to show that the presently claimed invention is patentably obvious. Applicants suggest that such a burden has not been met as the Examiner's rationale is based on technically, factually and scientifically unsound principles that have already been discussed previously.

In any event, Applicants are perplexed by the Examiner's statement "arbitrary values" have been assigned by the Applicants vis-à-vis Kriz et al. What "arbitrary values" is the Examiner referencing? If only the values

[1] *See, In re Katzaschmann*, 146 USPQ 66 (CCPA 1965).

literally disclosed by Kriz et al were considered, there is no question that the presently claimed invention is "distinguished patentably over Kriz et al for the reasons of record. Applicants have however also shown that by enlarging the disclosure of Kriz et al in a reasonable way consistent with knowledge of the ordinarily skilled person, the present invention is likewise patentably distinguishable. On the other hand, the Examiner has apparently enlarged the disclosure of Kriz et al. in a scientifically unsound and unfounded manner. This in and of itself is reversible error.

3. Conclusion.

For the reasons advanced, the Examiner's rejections of the pending claims herein are in error and must be reversed. Such favorable action is solicited.

Respectfully submitted,

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